

Joint ANL/FNAL SCSPF  
& FNAL SCRF Processing Update  
+  
3<sup>rd</sup> Harmonic HOM Study (in brief)

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# SCSPF & BCP System Status

## ANL Safety Review

- Shepard/Kelly review nearing completion.
- Beneficial occupancy tentatively scheduled for June/July.
  - Final review panel recommendations are being implemented.
  - FNAL continues to assist in the process.
- First ANL chemical procedure may occur in July.

# SCSPF & BCP System Status

## SCSPF Infrastructure

- UPW System
  - Water quality sample verification due back this week.
  - Full system integration next week.
- All other common systems are **GO!**

# SCSPF & BCP System Status

## Cleanroom/Anteroom/Mezzanine Configuration

- Storage infrastructure and other items being purchased
- Cleanroom layouts for 1.3 GHz operation are under consideration.

# SCSPF & BCP System Status

## BCP System Status

### *~Change of Plans~*

- Commissioning for 3.9 GHz operation was stopped to begin preparations for 1.3 GHz processing.
- All 3.9 GHz processing for 3<sup>rd</sup> Harmonic cavity program will be performed in G150.
- 1.3 GHz operations require significant facility modifications.

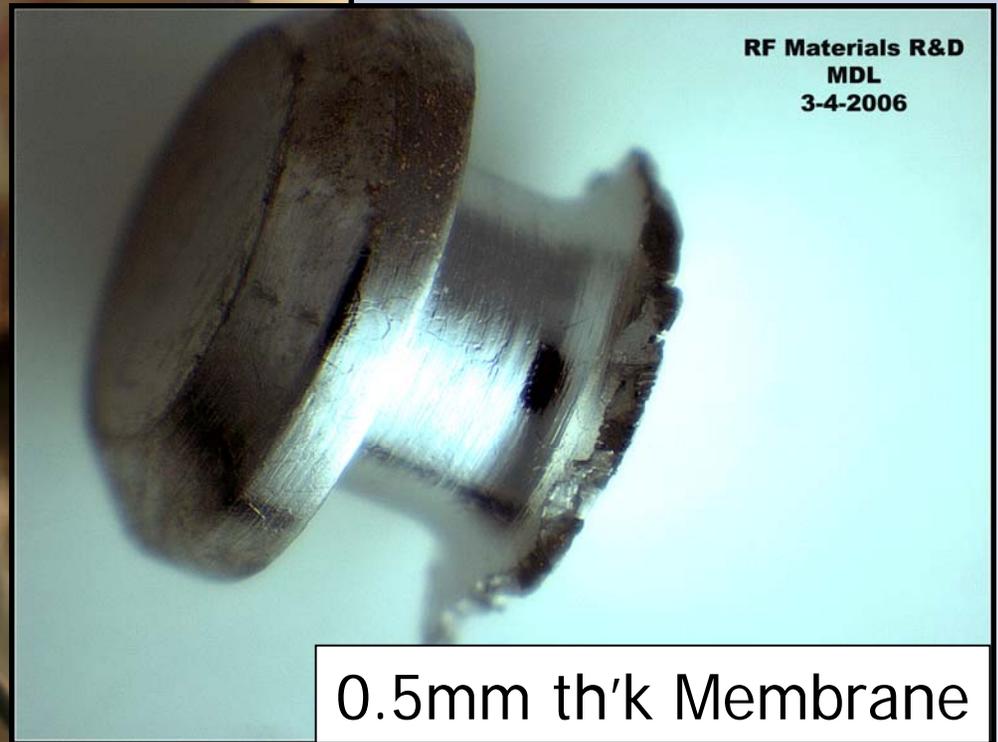
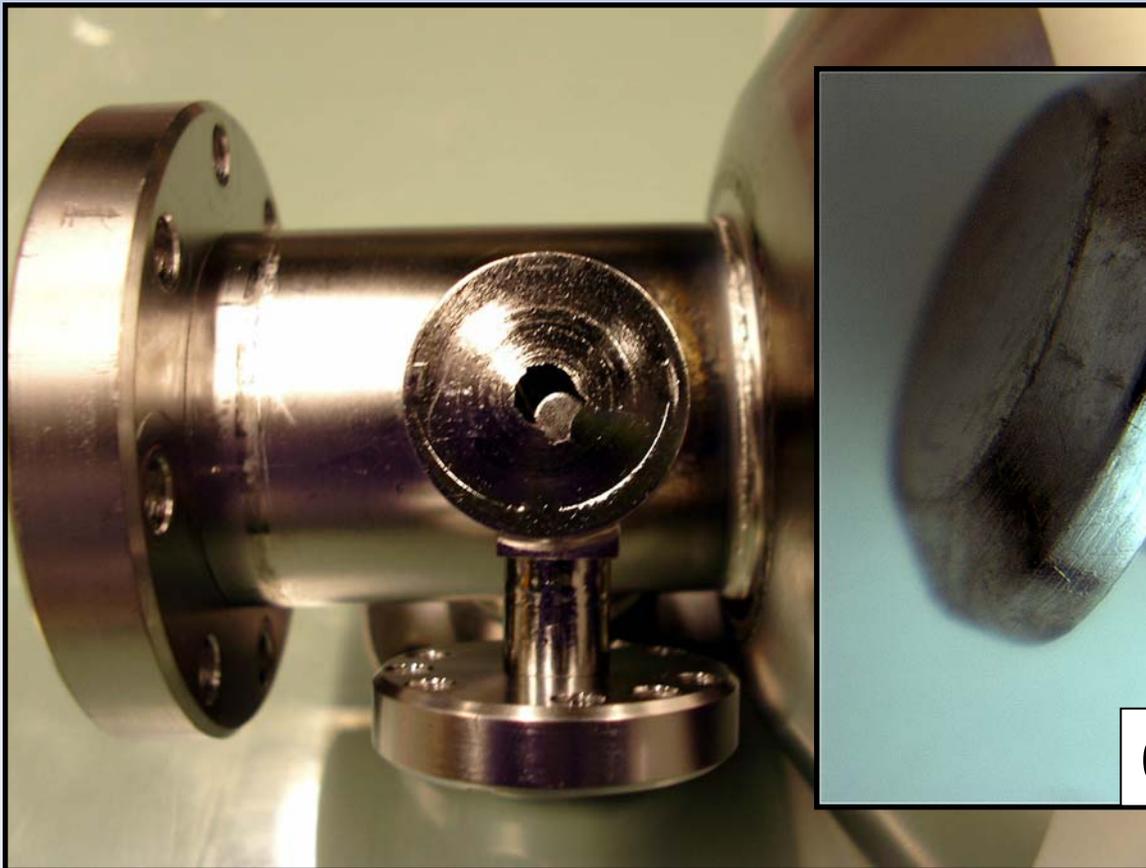
# SCSPF & BCP System Status

## BCP System Status

- Modifications to the BCP System will occupy several people for several months. No schedule has been set yet.
- 1.3 GHz modifications are not limited to the BCP System. They include all handling, transport, and cleaning issues.

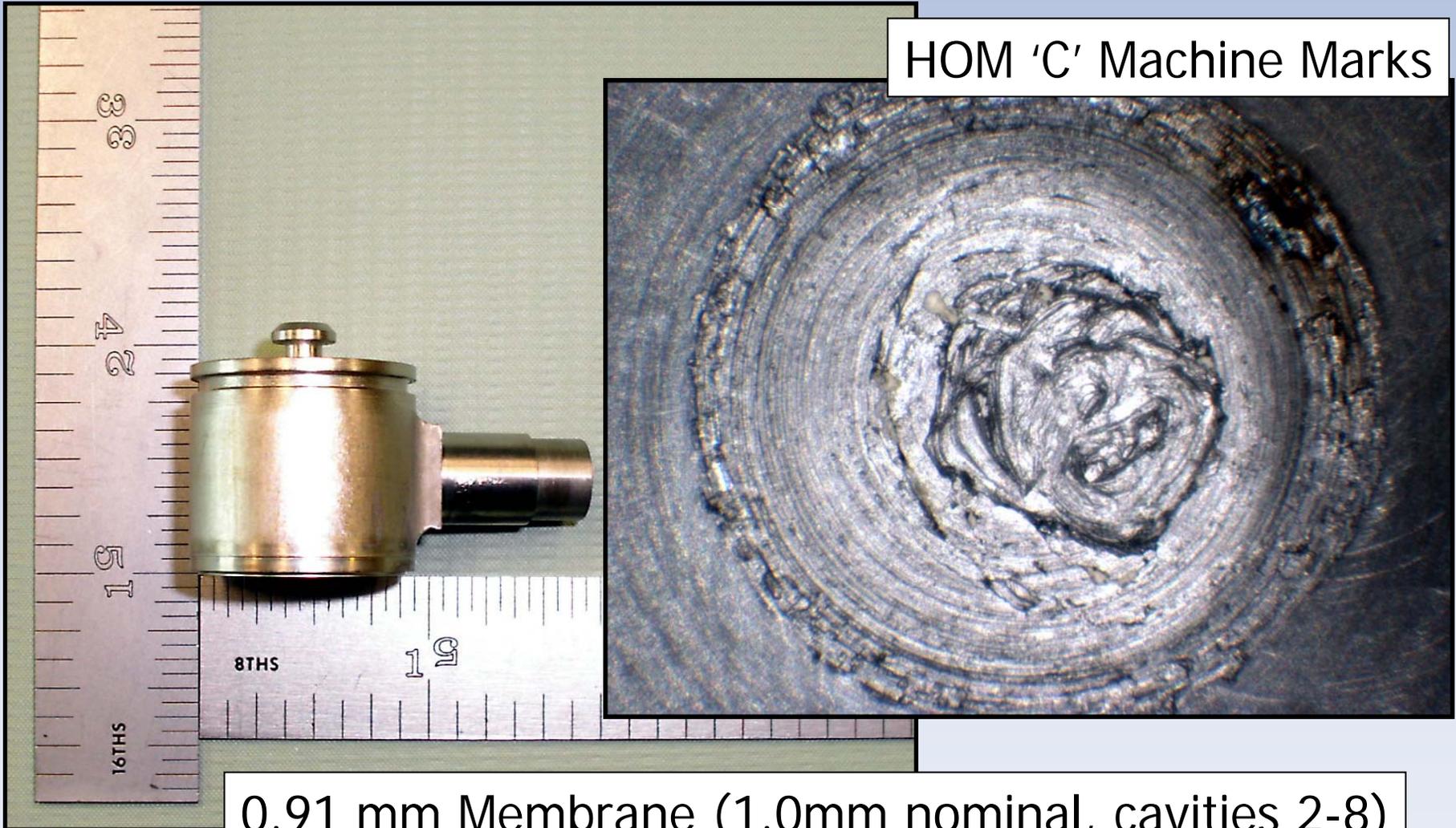
# 3<sup>rd</sup> Harmonic HOM Study

~The Impetus – Cavity #1~



# International Linear Collider at Fermilab

HOM 'C' Machine Marks



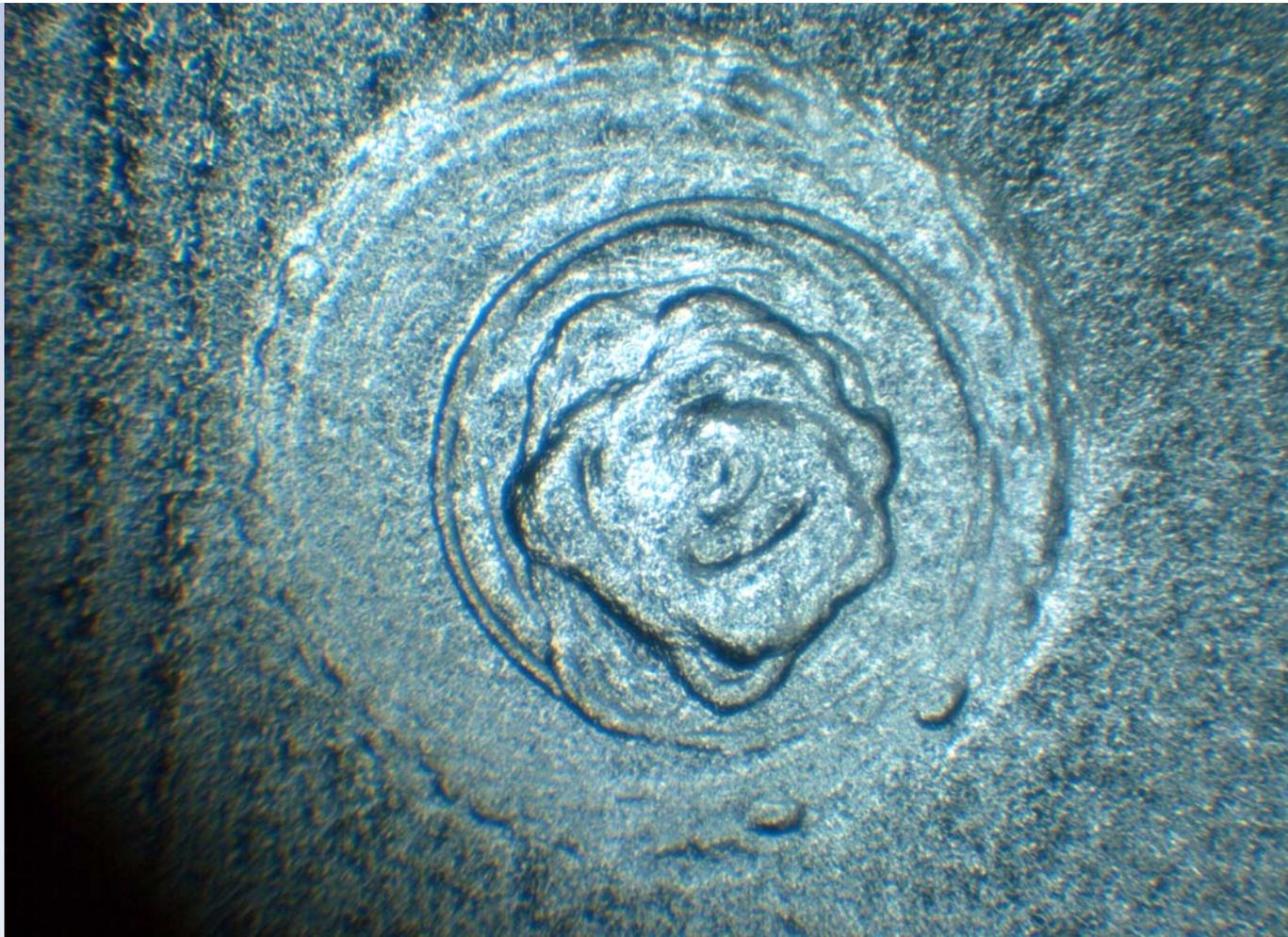
0.91 mm Membrane (1.0mm nominal, cavities 2-8)

## HOM 'C' Test Steps

(Duplicates cavity processing)

1. Ultrasonically clean/degrease 45 min
2. Etch 120  $\mu\text{m}$  (inside only)
3. Cycle membrane -0.5mm, +0.5mm, 0
4. Ultrasonically clean/degrease 1 hour
5. Etch 20  $\mu\text{m}$  (inside only)
6. Bake 800C 2hrs
7. Ultrasonically clean 1 hour
8. Cycle membrane -0.5mm, +0.5mm, 0
9. Ultrasonically clean 1 hour
10. Helium leak check ( $4\text{e-}10$  Torr---**OK!**)

# HOM 'C' After Processing Steps 1-10.



# Typical HOM Machine Marks Cav's 2-8



Only ultrasonic cleaning done.